

B1

continuation of U.S. Serial No. 08/899,005 filed July 23, 1997, now U.S. Patent No. 5,994,247 issued on November 30, 1999, which is a continuation of U.S. Serial No. 08/535,587 filed September 28, 1995, now abandoned, which is a continuation of U.S. Serial No. 08/039,086, filed April 9, 1993, now abandoned, which claims priority to International Application No. PCT/GB93/00085, filed January 15, 1993, which claims priority to GB 92 00993.5, filed January 17, 1992 and GB 92 24612.3, filed November 24, 1992.

IN THE CLAIMS

Please amend the claims as indicated below.

B2

14. (Amended) A method of insulating an article in applications requiring resistance against repeated exposure to temperatures exceeding 900°C comprising:
disposing on, in, near or around the article thermal insulation which is a refractory insulating material having a maximum service temperature greater than 900°C and comprising vitreous fibers having a composition comprising SiO₂, CaO, MgO, and optionally Al₂O₃, wherein:

(a) SiO₂ is present in an amount (1) greater than 58% by weight SiO₂, if the amount of MgO in the composition is in the range 0 through 10 percent by weight; or (2) greater than the sum of (58 + 0.5(weight percent of MgO - 10)) percent by weight SiO₂, if the amount of MgO in the composition is greater than 10 percent by weight;

(b) an amount up to 42 percent by weight CaO;

(c) an amount up to 31.33 percent by weight MgO., and

(d) 0 to less than 3.97 percent by weight Al₂O₃;
wherein the refractory insulation material has a maximum service temperature greater than 900°C; the refractory insulation material has a shrinkage of less than 3.5 percent when exposed to a temperature of 1000°C for 24 hours, and has a

shrinkage of less than 3.5 percent when exposed to a temperature of 800°C for 24 hours; and

*B2
Cont.*
wherein the refractory insulation material is essentially free of alkali metal oxide and boron oxide fluxing components.

Please add the following new claim:

--23. A method of insulating an article in applications requiring resistance for about 3.5 hours or more against temperatures exceeding 900°C comprising:

B3
disposing on, in, near or around the article thermal insulation which is a refractory insulating material having a maximum service temperature greater than 900°C and comprising vitreous fibers having a composition comprising SiO₂, CaO, MgO, and optionally Al₂O₃, wherein:

(a) SiO₂ is present in an amount (1) greater than 58% by weight SiO₂, if the amount of MgO in the composition is in the range 0 through 10 percent by weight; or (2) greater than the sum of (58 + 0.5(weight percent of MgO - 10)) percent by weight SiO₂, if the amount of MgO in the composition is greater than 10 percent by weight;

- (b) an amount up to 42 percent by weight CaO;
- (c) an amount up to 31.33 percent by weight MgO., and
- (d) 0 to less than 3.97 percent by weight Al₂O₃;

wherein the refractory insulation material has a maximum service temperature greater than 900°C; the refractory insulation material has a shrinkage of less than 3.5 percent when exposed to a temperature of 1000°C for 24 hours, and has a shrinkage of less than 3.5 percent when exposed to a temperature of 800°C for 24 hours; and

wherein the refractory insulation material is essentially free of alkali metal oxide and boron oxide fluxing components.—